

☐ 1: Mol Urol. 1999;3(2):51-59.

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Nitric Oxide and the Cyclic GMP System in the Penis.

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Since the discovery that nitric oxide is the mediator of penile erection, considerable evidence has been accumulated in experimental animals and men regarding the pharmacology and molecular biology of the nitric oxide/cGMP pathway in the penis. This review examines the expression and tissue localization of nitric oxide synthase isoforms (NOS) in this organ and the functional significance of their variants. The dysregulation of the balance between nitric oxide synthesis and the compliance of the corpora cavernosa smooth muscle in relation to erectile dysfunction in animal models is discussed. The possible up-regulation of NOS levels and the interaction of NOS variants with protein modulators of their activity is analyzed in the context of novel concepts of gene therapy of erectile dysfunction.

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